UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,420	07/29/2003	Thomas Lee	006943.00310	6264

66811 7590 01/09/2008

BANNER & WITCOFF, LTD.
and ATTORNEYS FOR CLIENT NO. 006943
10 SOUTH WACKER DR.
SUITE 3000
CHICAGO, IL 60606

EXAMINER	
CHAWLA, JYOTI	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
01/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/628,420	LEE ET AL.	
	Examiner	Art Unit	
	Jyoti Chawla	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's submission filed on September 20, 2007 has been entered. Claims 23-24, have been amended. Claims 23-40 are pending and examined in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 23 and 24 recite "increasing the pH of the lemon/lime flavored beverage"in step (b) and "Stability of the lemon/lime flavored beverage is improved by increasing the pH of the lemon/lime flavored beverage" in claims 23 and 24.

As recited the term "increasing the pH" is unclear which renders the claim indefinite. It is not clear whether the increase in pH is increasing the acidity of the beverage or making the beverage more basic. Further it is also unclear as to what is the standard pH being used to measure a lemon/lime flavored beverage against which the increased pH provides an improvement. Furthermore, the claims as recited are unclear as to how much increase in the pH is desired to increase the stability of the lemon/lime flavored beverage.

Claims 23-24 as recited are also unclear for the recitation of "stability of the lemon/lime flavored beverage is improved by increasing the pH of the lemon/lime flavored beverage" as it is not clear as to what is encompassed by the term "stability... is improved" as there is no standard of stability recited in the claim against which the improvement is being measured. Further as recited it is unclear as to what is encompassed by the term "stability" as recited instantly. It is unclear whether the stability refers to flavor, color, overall appearance, taste or some other characteristic of

the beverage. Furthermore, the claims as recited are unclear as to how much increase in the pH is desired to increase the stability of the lemon/lime flavored beverage.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

(A) Claims 23-30 and 33-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braun et al (US 4830862) in view of combination of Van Ness (US 3245798) and Nakel et al (US 4551342).

Regarding amended claims 23-28 and 35-36, Braun et al, hereinafter Braun, teaches a beverage composition with acid component comprising citric, phosphoric and other edible acids including malic acid, fumaric acid and adipic acid and mixtures thereof, i.e., Braun teaches of edible acids having a smaller dissociation constatnt that citric and phosphoric acids, such as, adipic acid as instantly claimed. Braun also teaches of addition of salts including citrate and phosphate salts (Column 5, lines 53-68)to the beverage compositions as instantly claimed. Braun teaches carbonated beverages or soft drinks with lemon-lime and cola flavors (Column 8, line 58 and Column 9, lines 7-10, and Column 14, lines 10-15) as recited in claim 23, 24, 37, 38, 39 and 40. Braun teaches that the level of acid component depends on the beverage composition, the

mouthfeel, taste and stability properties desired (Column 6, lines 1-6). Braun also teaches that the mixture of acids or the total acid component vary in beverage concentrates from 1.2 to 20% by weight and for other baverages the total acids vary in the range from 0.07 to 2% (Column 6, 1-26). Braun further teaches specific examples where the amounts of citric acid 3.75 /1500 grams and 1.3/1000 grams, i.e., 0.13-0.25% acid by weight in lemon-lime flavored beverages, which falls in the ranges recited in claims 27 -28 by the applicant. Thus Braun teaches of beverages with the acidulant system comprising of citric acid, phosphoric acid with other acids such as adipic or malic or fumaric acid (i.e., oxidized succininc acid) as instantly claimed. Thus adipic acid was known and included as part of the acidic component of a lemon/lime flavored carbonated beverages at the time of the invention. Braun also teaches that the amount of acidic component added in a beverage can be varied can be a mixture of acids depends on the beverage composition, the mouthfeel, taste and stability properties desired (Column 6, lines 1-6). Thus it was known at the time of the invention that varying the amount of acid in beverage compositions affects the taste and stability of the beverage (Braun).

Braun teaches of addition of adipic acid as part of the acid in the beverages as discussed above but does not teach the specific amount of adipic acid in a beverage. Braun teaches that acids with smaller dissociation constant as compared to citric acid and phosphoric acid (i.e., acids like were known to be part of the acidulant system of the beverages. Van Ness also teaches that adipic and/or fumaric acids (both acids with smaller dissociation constants than citric and phosphoric acids) can be used as acidulants in beverages when made soluble by the addition of surfactants. Van Ness teaches that adipic and fumaric acids are more effective acidulants than citric acid (Column 1, lines 15-30). Van Ness further teaches that adipic and/or fumaric acids can be used in place of citric acid or in addition to the citric acid (Column 1, lines 15-70) in order to acidify the beverages. Thus the addition of edible acids with smaller dissociation constants as compared to citric and phosphoric acids was known in the art of beverages at the time of the invention. Further it was also known that adipic or

fumaric or both acids can be added in place of or in addition to citric acid in a beverage in order to alter the pH of the beverage as instantly claimed.

Regarding the relative proportions of the acids in beverages, Braun teaches that the amount of acidic component added in a beverage can be varied can be a mixture of acids depends on the beverage composition, the mouthfeel, taste and stability properties desired (Column 6, lines 1-6). Further regarding the tartness, it is well known in the art that edible acids differ from each other in level of acidity and tartness and the release of the acid and tart characteristics e.g., adipic acid has the lowest acidity of any food acids and imparts a slowly developing, smooth, mildly acid flavor and is non-hygroscopic, which is advantageous for powdered products in prolonging the shelf life, whereas citric acid has sharp tartness and provides an immediate acid taste. Thus it was known at the time of the invention that varying the amount of acid in beverage compositions affects the taste and stability of the beverage (Braun). Braun further teaches specific examples where the amounts of citric acid 3.75 /1500 grams and 1.3/1000 grams, i.e., 0.13-0.25% acid by weight in lemon-lime flavored beverages, which falls in the ranges recited in claims 27 -28 by the applicant. Nakel et al, hereinafter Nakel, teaches beverages and beverage concentrates with improved flavor, desirable sweetness and sourness that could be controlled over a wide range of pH (column 2, lines 1-49) and the concentrates taught are storage stable and without the off flavors due to the insoluble salt formation on storage, i.e., Nakel teaches of making the beverages stable as instantly claimed. The beverages taught by Nakel can be made as carbonated and noncarbonated, with various flavors and blended flavor components including cola, lemon and lime etc., and blends thereof (column 5, line 47 to column 6, line15) and containing acidulants like citric acid and phosphoric acid as instantly claimed. Nakel also teaches addition of calcium, potassium and magnesium and other cations like sodium and ammonium in smaller amounts as acid salts i.e., as citrates, malates and phosphates to the beverage and beverage concentrates taught (column 6, lines 50-62 and column 4, line 63 to column 5, line 10) and (column 2, lines 14-20; column 7, lines 1-14; Column 10-13, Embodiments 1-9 and summary table). Nakel, further teaches that the amount of citric acid in the beverage could be varied between

0.06- 0.96% which includes applicant's recited ranges of claims 27 and 28. Nakel also teaches of a mixture of cations like Calcium, Phosphorus, Magnesium, sodium and ammonium as citrates, malates, phosphates and dihydrogen phosphates among other forms to provide the right pH and appropriate flavor note in conjunction with the acid (Column 6, lines 50-62) as recited in claims 27-30. Also see (column 1, lines 13-14 and Column 5, line 47 to column 6, line 15).
Nakel teaches beverages and beverage concentrates with the organic acid and citric acid, and gives formula to determine the total acidity of the drink and that by varying the amounts of one or more of the acids, it can be determined whether the acid number of the beverage, which in turn would determine the acceptability of the beverage (column 8, line 48 to column 9, line 17). The formula taught is:

(8.7.times.cit)+(8.9.times.mal)+(11.4.times.phos)+(5.5.times.cit.times.mal) - (0.6.times.cit.times.phos)+(5.0.times.mal.times.phos)+(30.1.times.cit.times.mal.times.phos)=A

wherein cit is the weight ratio of citric acid in the acid component, mal is the weight ratio of malic, succinic or a mixture of malic and succinic acid, phos is the weight ratio of phosphoric acid, and A is from about 9.6 to about 12.1.

The formula assumes malic acid as the organic acid, however any other compatible organic acid could also be used. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute one art recognized functional equivalent (i.e. adipic acid) for another (i.e. malic/ succininc acid) in the beverage composition as disclosed byBraun in view of Nakel, depending on which acidulating agent was more available and affordable at the time the invention was made.

According to the formula if the resulting acid number (A) falls within 9.6 and 12.1, the beverage would have a desirable acid level. Thus addition of organic acids like malic, succininc, adipic or fumaric acid to a beverage with citric and /or phosphoric acids was known at the time of the invention as taught by Braun, Van Ness and Nakel. Therefore, it would be within the purview of one of ordinary skill at the time of the invention to

experiment with various edible acids and the relative amounts of those acids and salts in order to find various combinations of salts and acids with acceptable acid number range as taught by Nakel. For example, if the ratio of organic acid:citric acid is taken as 1:3 or 1:4 as recited by the applicant in claims 23 and 25 respectively and plug in the numbers in the formula taughtbyNakel, where amount of phosphoric acid is zero and organic acid : citric acid is 0.25:0.75 (i.e., 1:3 ratio) and 0.2:0.8 (i.e., 1:4 ratio) respectively. After plugging in the numbers it is noted that

Ratio	Substitution in Formula		Solution
1: 3-→	(8.7 X 0.75) + (8.9 X 0.25) + (5.5 X 0.75 X 0.25)	=	9.78
1: 4-→	(8.7 X 0.80) + (8.9 X 0.2) + (5.5 X 0.80 X 0.2)	=	9.62

Both the above ratios that have been recited by the applicant as acceptable acid ratios and their results fall within the accepted acidity range (A) of 9.6 to 12.1 for a stable beverage as taught by the formula of Nakel. Thus altering the relative amounts of edible acids in a beverage composition was known to a skilled artisan at the time of the invention. Therefore, it would have been a matter of routine optimization experimentation to one of ordinary skill at the time of the invention to modify beverage composition as taught by Braun and include organic acids such as adipic acid in relative amounts in order to keep the total acidity of the beverage in the desired range in order to make a storage stable beverage. It would also have been obvious to one of ordinary skill in the art at the time of the invention to substitute one art recognized functional equivalent (i.e. adipic acid) for another (i.e. malic/ succininc acid) in the beverage composition as disclosed byBraun in view of Nakel, depending on which acidulating agent was more available and affordable at the time the invention was made.

Based on the teachings of Braun and Van Ness, it is noted that addition of adipic acid as an organic acid in the acidulant composition for making a beverage either in addition or in pace of citric acid was known in the art at the time of the invention. Adipic acid has been known to have a smaller dissociation constant as compared to citric acid. It was also known that edible organic acids in various combinations can be used to make a stable beverage if the total acidity is in the range taught by the formula of Nakel. Further

regarding the tartness, edible acids have been known to differ from each other in level of acidity and tartness and the release of the acid and tart characteristics e.g., adipic acid has the lowest acidity of any food acids and imparts a slowly developing, smooth, mildly acid flavor and is non-hygroscopic, which is advantageous for powdered products in prolonging the shelf life, whereas citric acid has sharp tartness and provides an immediate acid taste. Therefore, it would have been obvious to one of ordinary skill in the art to modify the lemon-lime or cola beverage taught by Braun to contain adipic acid in a desirable amount, while keeping the total acid of the beverage in the optimal range using the formula taught by Nakel in order to make a beverage that has desirable tartness and pH and that remains stable upon storage, as taught by Nakel. One would have been motivated to do so in order to make the beverage or beverage concentrate or ready to consume beverage that has optimal acidity and high acceptability due to its flavor and long storage life as taught by Nakel. One would have been further motivated to use adipic acid in the beverage composition as adipic acid is less hygroscopic than other food acids and provides slow developing mild acid flavor, as compared to citric and phosphoric acids and it does not absorb moisture from the atmosphere as taught by Van Ness, which would make dry beverage components to remain free-flowing, easily transportable and having a longer shelf-life. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e. adipic acid) for part of another (i.e. part of citric and/or phosphoric acids) in the beverage composition as disclosed by Braun, depending on which acidulants were more available, affordable and had more desirable characteristics for the intended purpose at the time the invention was made. Thus, the invention as claimed would have been obvious over Braun in view of combination of Van Ness and Nakel, absent any clear and convincing evidence and/or arguments to the contrary.

Claims 24 and 26 recite the ratio range of organic to phosphoric to citric acid in a beverage is 3.0 - 4.0: 1.4 - 2.0: 1.0 in claim 24 and 3.3 - 3.7: 1.6 - 1.8: 1.0 in claim 26 respectively. Braun is silent as to the ratio of the organic acids, Nakel teaches

beverages and beverage concentrates with the recited organic acid, phosphoric acid and citric acid and as discussed above Nakel also teaches a formula to determine the total acidity of the drink (column 8, line 48 to column 9, line 17). Nakel teaches a ratio of 3.6: 1.4:1.3 in embodiment 2 (column 1, lines15-30) which falls within the recited range of the applicant for the amount of organic acid and phosphate, however Nakel has a little more citric acid in proportion. Nakel also teaches that by adjusting the concentration of acids in relation to the cations or buffer salts, it is possible to alter the pH and sourness in the flavor of the resulting beverage (column 9, lines 10-17). Therefore, it would have been obvious to the one with ordinary skill in the art at the time of the invention to modify Braun based on the teachings from Nakel and include the amount of citric acid in the beverage of Embodiment 2 or vary slightly as long as the total acidity remains in the acceptability range as taught by Nakel because Embodiment 2 taught by Nakel is an example of the various acid combinations possible in preparing a beverage with low pH and Nakel also teaches that the amount of acid components can be adjusted to be used in combination with various cation salts or buffer salts in order to alter the flavor to desired level, i.e., sourness, tartness, delayed or lingering sourness etc.
While the prior art does not expressedly teach the exact ratios, it was well known to use the acids listed in shelf stable beverages in different amounts in order obtain the desired flavor (Braun, Van Ness and Nakel). Therefore, it is not seen how the specific ratios claimed by the applicant would create an unexpected result, absent any clear and convincing evidence and arguments to the contrary.

Regarding claim 29 and 30, Braun teaches calcium salts of acids like citrate and phosphate to the beverages in the form of mono-, di-, tri ionic forms, i.e., calcium phosphate, calcium hydrogen phosphate and calcium dihydrogen phosphate, (Column 5, lines 5-15) as recited by the applicant.

Regarding claims 33-36 Braun is silent about the combined amount of citrate and phosphate salts present in the beverage where two or more acidulants are being used.

Nakel teaches the citrate and phosphate salts as the cation component. Nakel teaches that the cation component for a liquid carbonated beverage ranges between 0.1-0.6 % by weight which falls in the range recited by the applicant in claims 33-36. Nakel also provides general formulas that can be used to determine the right amount of total cations in the beverage in proportion to the acidulants (edible acids) and vice versa to give a general idea of an acceptable range for acid and cation for any beverage flavor taught.

(B) Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braun et al (US 4830862) in view of combination of Van Ness (US 3245798) and Nakel et al (US 4551342) as applied above further in view of Lee et al (US 5348756).

Claims 31 and 32 recite the ratio of citrate and phosphate salt. Braun teaches that the level of total acids in the beverage depends on the beverage composition, level of calcium based salts, mouthfeel, taste and stability desired and for beverages that do not contain fruit juice can have the acid range of 0.2-5% by weight, which is different from fruit juice based beverages (Column 6, lines 1-26).
Nakel, teaches the use of mixtures of calcium salts in the beverages which, act as buffers, can be present in the beverage composition either as carbonates, hydroxides, bicarbonates or sour salts (citrates etc.). However, both Braun and Nakel are silent as to the exact proportion of these salts in the beverage composition taught.
Lee makes gelatin gels in flavors and adds buffering salts to neutralize the acidity of citric and adipic acids with soluble phosphate and citrate salts at a ratio of 0.9-2: 1 and preferably of 1-1.5: 1(column 2, lines 34-49). The range of the buffer salt ratio taught by Lee includes the ratios recited by the applicant in Claims 31 and 32.
Thus the addition of salts of calcium sodium and /or potassium has been known additives to the beverages. The amount of these salts in a beverage in the recited range of the applicant has also known (Lee). Therefore, it would have been obvious to the one of ordinary skill in the art at the time of invention to modify Braun to include a specific ratio range of the cation / buffer salts used in the beverage as taught by Lee. One would

have been motivated to do so in order to provide a composition with desirable tartness and flavor to the finished product without excessive acid taste.

While the prior art does not expressedly teach the exact ratios, it was well known to use the acids listed in shelf stable beverages in different amounts in order obtain the desired flavor. Therefore, it is not seen how the specific ratios claimed by the applicant would create an unexpected result, absent clear and convincing evidence and arguments to the to the contrary.

Response to Arguments

Applicant's arguments filed September 20, 2007 have been fully considered but they are not persuasive.

i) Applicants argument that Braun , Van Ness and Nakel do not teach the claimed invention as the references do not teach "increasing the pH of the lemon/lime flavored beverage while at the same time maintaining or increasing the tartness" (Remarks , page 9), has not been found persuasive for the following reasons:

a) It is unclear as to what standard Ph or acidity level the instantly claimed improved beverage is being compared to as discussed under 112 rejection above.

b) Braun and Van Ness have been discussed in the office action above. Regarding Nakel, the reference does teach of making a storage stable beverage and also provides a formula to calculate the acidity number and manipulate the relative proportions of acids in such a way as to achieve optimal acidity while also achieving storage stability. Thus as discussed above in the office action, it was known in the art to use combinations of acids to achieve the tartness and acidity to make a shelf stable beverage. Further addition of buffer salts (citrate or phosphate salts) in the beverages as taught by Braun, was also known in the art at the time of the invention to adjust the pH or acidity of the beverages. Therefore, not only would it be obvious to one of ordinary skill in the art to modify the relative amounts of various acids to achieve various combinations of tartness, but one would also have a reasonable expectation of success in achieving a stable lemon/lime flavored beverage with the optimal combination of tartness and acidity, absent any clear and convincing evidence and/or arguments to the contrary.

ii) Applicant's argument that Nakel does not teach adipic acid (Remarks, page 9, last paragraph) has not been found persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the above obviousness rejection Braun and Van Ness teach of adipic acid as part of the acidulant system of a beverage. Further it is noted that the product as claimed has an acidulant system comprising citric acid and adipic acid for lemon/lime flavored beverage of claim 23, and citric acid, phosphoric acid and adipic acid for lemon/lime flavored cola beverage of claim 24, and a buffer system with sodium, potassium or calcium salts as recited in claims 29 and 30, which are also taught by Braun. Braun also teaches of selection of acid systems to provide desired tartness or sourness character to the beverage or the concentrate (Abstract and Columns 1 and 2), which is also the intent of the applicant. Therefore, Braun is also teaching a way of making a shelf stable lemon/lime flavored beverage with or without cola flavor, with or without carbonation as instantly claimed. Thus applicant's argument that the references do not teach adipic acid or the recited invention has not been found persuasive.

iii) Regarding applicant's argument that "increasing the pH would increase stability, but that doing so would reduce the tartness of the beverage" have not been found persuasive as the claims as recited do not provide a standard against which the increased pH and tartness are being measured (see the 112 rejection above). Further regarding the tartness, it is well known in the art that edible acids differ from each other in level of acidity and tartness and the release of the acid and tart characteristics e.g., adipic acid has the lowest acidity of any food acids and imparts a slowly developing, smooth, mildly acid flavor and is non-hygroscopic, which is advantageous for powdered products in prolonging the shelf life, whereas citric acid provides sharp tart flavor and immediate acid taste. Thus optimization of acidity and tartness of a beverage composition by using varying proportions of edible acids for their known characteristic

properties does not provide patentable distinction to the claims, absent any clear and convincing evidence and/or arguments to the contrary.

iv) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., cola beverages are typically formulated to a pH of about 2.5 to 2.8 ...overall flavor of cola [Remarks, page 8] and "increasing the pH of the lemon/lime flavored beverage while at the same time maintaining or increasing the tartness" [Remarks, page 9]) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
Thus applicant's arguments filed September 20, 2007 have been fully considered but they are not persuasive and claims 23-40 remain rejected for the reasons of record.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jyoti Chawla
Examiner
Art Unit 1794

KEITH D. HENDRICKS
SUPERVISORY PATENT EXAMINER